

T R U **TRANSPORT REFRIGERATION UNITS**

TRU Brochure #1

What California Owners, Operators and Facilities Need to Know to Comply

A Guide to Understanding The
Regulation to Reduce Diesel
Particulate Matter (PM) Emissions
From TRUs and TRU Gen Sets



**Cal/EPA
California Air Resources Board
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<http://www.arb.ca.gov/diesel/tru.htm>

Who is affected?

- Owners and operators of in-use diesel-fueled TRUs and TRU gen sets that operate in California, irrespective of whether they are registered in or outside of the State of California. This includes all carriers that transport perishable goods using diesel-powered refrigeration systems on trucks, trailers, shipping containers, and railcars that operate in California.



- Facilities located in California with 20 or more loading dock doors serving refrigerated areas where perishable goods are loaded or unloaded for distribution on trucks, trailers, shipping containers, or railcars that are under facility control.

What is the purpose of the regulation?

In February 2004, the California Air Resources Board (ARB) approved the *Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Gen Sets, and Facilities Where TRUs Operate* (TRU ATCM). The TRU ATCM is designed to use a phased approach over about 15 years to reduce the diesel particulate matter (PM) emissions from in-use TRU and TRU gen set engines that operate in California.

What are the basic requirements?

Applicable facilities will be required to submit a one-time report to ARB that provides information about the size and type of facility, and the TRU activity that occurs at the facility.

The TRU ATCM will require in-use TRU and TRU gen set engines that operate in California, to meet in-use performance standards that vary by horsepower range. These standards can be met by:

- Using an engine that meets the required engine certification standard, or
- Equipping the engine with the required level of verified diesel emission control strategy, or
- Using an Alternative Technology.

In addition, operators of California-based TRUs will be required (optional for non-California TRUs) to apply for an ARB identification number and submit an initial operator report to ARB that provides information about the California-based TRUs that they operate in California. Update reports are required as California-based TRUs are leased, purchased, or sold.

What are the environmental and health benefits?

Estimates show that diesel PM emission factors for TRUs and TRU gen set engines will be reduced by approximately 65 percent in 2010 and 92 percent in 2020. Diesel PM emission reductions will total about 3,000 tons by 2020. California's air quality will also experience benefits from reduced NOx emissions and reduced HC emissions. The health benefits from reduced emissions is estimated to reduce both cancer and non-cancer illnesses, and premature deaths.

When is the effective date?

The facility reports are due January 31, 2006. Applications for an ARB identification number for all California-based TRUs and TRU gen sets and the initial operator reports are due on or before March 16, 2009. TRUs and TRU gen sets that operate in California will be required to meet the in-use performance standards on a phased compliance schedule based on the engine model year. (See table)

Where are TRUs regulated?

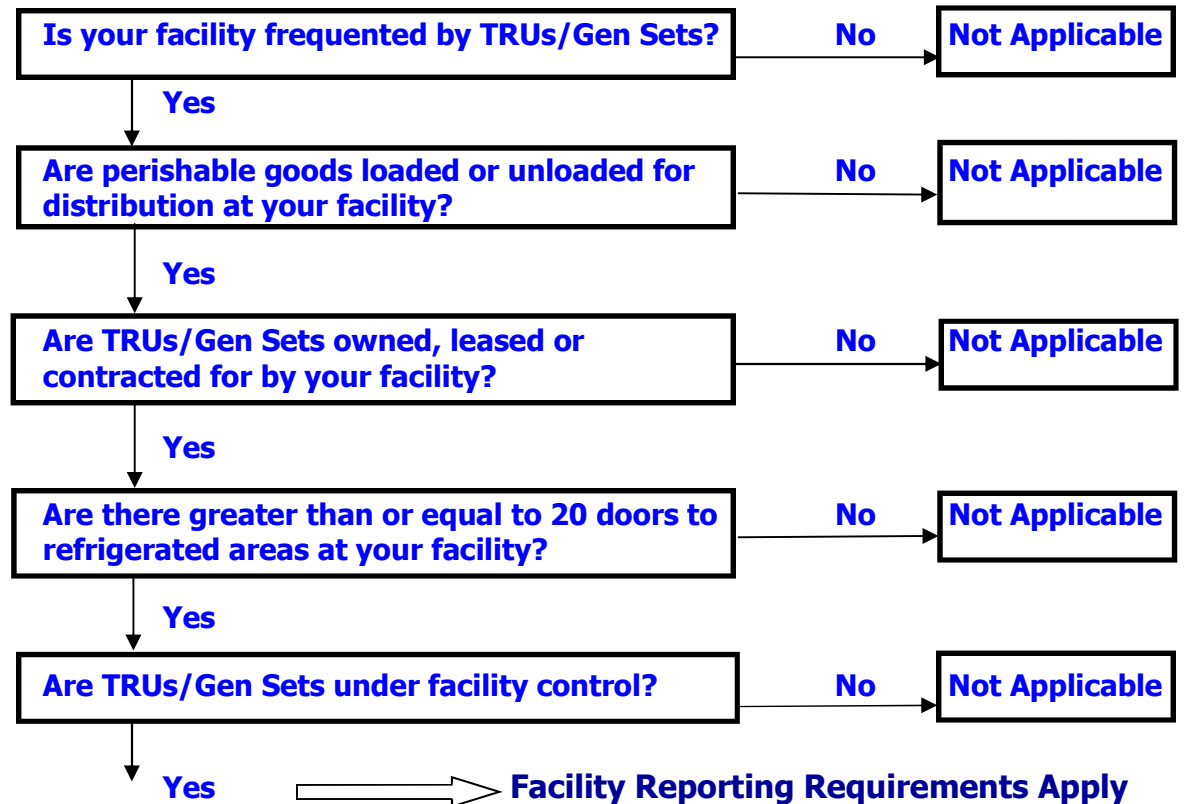
The TRU ATCM will apply to owners and operators of in-use diesel-fueled TRUs and TRU gen sets that operate in California, irrespective of whether they are registered in or outside the State.

Why must we regulate Diesel emissions?

In 1998, the Board identified diesel PM as a toxic air contaminant (TAC). Diesel exhaust is a complex mixture of thousands of gases and fine particles that contains more than 40 identified TACs. These include many known or suspected cancer-causing substances, such as benzene, arsenic and formaldehyde. Because of the amount of emissions to California's air and its potency, diesel PM is the number one contributor to the adverse health impacts of TACs known today. Numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks and premature deaths among those suffering from respiratory problems.

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How can you determine if your facility is affected by the TRU ATCM requirements?



TRU AND TRU GENERATOR SET COMPLIANCE DATES

Model Year of Engine	Compliance Date for Low Emission Standard	Compliance Date for Ultra Low Emission Standard
2001 OR OLDER	December 31 2008	December 31, 2015
2002	December 31, 2009	December 31, 2016
2003	N/A	December 31, 2010
FUTURE YEARS	N/A	December 31 of the model year + 7 years

For more information:

Please see the ARB's TRU website at: <http://www.arb.ca.gov/diesel/tru.htm> for information and to sign up for the TRU list serve. Call ARB's TRU Helpline at 1-888-878-2826 (1-888-TRU ATCM) if you have questions.